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## briefing note

# Why a Carbon Tax and/or Cap-and-Trade System is needed to reduce global warming emissions

### RATIONALE:

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To protect the health, economy, and future of Canadians, the federal government should take action to reduce greenhouse gas emissions that lead to global warming. A strong concerted response will spur innovation, investment, and jobs in the rapidly growing clean energy sector. Most importantly, it will help get clean, renewable energy technologies into use and effectively reduce Canada's emissions.

### BACKGROUND:

One of the fundamental problems fuelling Canada's contribution to global warming is that the atmosphere is treated as a free dumping ground for harmful, heat-trapping emissions. Canada's poor record on reducing greenhouse gas emissions has largely been the result of relying on voluntary measures and failing to account for the environmental and health costs of carbon pollution through government policy (i.e., regulations or price signals). These weaknesses in Canada's economic system have been highlighted by the Organization for Economic Cooperation and Development (OECD).<sup>1,2</sup> Canada's emissions are now 22 per cent above 1990 levels, and 30 per cent above Canada's Kyoto commitments. The majority of Canada's emissions are associated with the burning, extraction, and production of fossil fuels (e.g. coal, gasoline, oilsands and natural gas). These emissions have significant environmental, social, and human health costs.

Pricing carbon emissions through a carbon tax or a cap-and-trade system is supported by the world's leading climate change policy experts and endorsed by several international working groups including the United Nation's Intergovernmental Panel on Climate Change. A higher price for higher-carbon choices makes greener options more commercially viable, thereby encouraging businesses and entrepreneurs to develop innovative solutions that offer consumers and businesses affordable, low-carbon alternatives. These leading experts agree: seeing that cost, and making it real, will give us new incentives to change the technologies and habits that created global warming in the first place.

Many industrialized countries and jurisdictions are now putting a price on carbon emissions to account for their full environmental and economic costs.<sup>3</sup> For example, Sweden has used a carbon tax to reduce greenhouse gas emissions since 1991. Although a suite of other policies has been used to reduce emissions, the Swedish Ministry of Environment estimated the carbon tax has cut emissions by an additional 20 per cent (as opposed to solely relying on regulations)<sup>4</sup> as carbon emissions have decreased more than seven percent since 1990. Sweden's carbon tax has been credited as the economic tool that has spurred the innovation and deployment of new low-carbon energy technologies such as green heating technologies which have significantly phased out the burning of oil for heating. Sweden's carbon tax has also been credited in part to putting the country on target to achieve and honour its commitment under the Kyoto Protocol.

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<sup>1</sup> OECD (2004) Environmental Performance Review of Canada

<sup>2</sup> Canada's revenues from environmental charges are equivalent to 1.3% of GDP, the second lowest of OECD countries and well below the OECD average of 2.5%. See David Suzuki Foundation/SFU (2005) The Maple Leaf in the OECD [www.davidsuzuki.org/files/WOL/OECD-English.pdf](http://www.davidsuzuki.org/files/WOL/OECD-English.pdf)

<sup>3</sup> e.g. British Columbia, Quebec, Norway, United Kingdom, Germany, Sweden, Finland, Netherlands, etc.

<sup>4</sup> Taylor, A. (2007) Carbon Pricing for a Sustainable Economy, Pembina Institute

The European Union as a region has chosen a cap-and-trade system as the instrument to give the same incentive as a carbon tax. The cap-and-trade system is expected to be the main policy tool to achieve the E.U.'s goal to reduce emissions by 20 per cent below 1990 levels by 2020.

Carbon pricing is accepted by many Canadian business leaders as it offers a flexible and least-cost approach to reducing emissions. Canada's leading economists have concluded that a carbon price would result in a very minor effect on the economy. For example, a report conducted last year for the federal government concluded that a \$50 dollar carbon price per tonne of GHG emissions implemented in 2006 would trim about 0.090 per cent of economic GDP in 2010, and then boost the economy by 0.004 percent GDP in 2020.<sup>5</sup>

### **Economic studies show a carbon price will spur innovation, investment and jobs in Canada**

Huge economic opportunities are being created in the low-carbon, clean energy industry as more countries and jurisdictions with large economies move forward with laws and policies to reduce global warming. Globally, future energy needs are expected to total over US\$20 trillion between now and 2030.<sup>6</sup> The most comprehensive economic study on climate change, authored by the former chief economist of the World Bank, projects the global market for low-carbon energy technologies will be worth at least US\$500 billion annually and perhaps much more by 2050.<sup>7</sup> Canada could establish a competitive advantage in North America as an innovator and developer of clean, renewable energy and transportation technologies if we act now. But a delay in implementing a carbon price signal on emissions creates many risks including higher cumulative emissions, increased economic costs, and a stronger likelihood that Canada will fall behind other jurisdictions and become less innovative and competitive in the clean energy economy.

### **FOR MORE INFORMATION CONTACT:**

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<sup>5</sup> Mark Jaccard & Associates (2007) Cost Curves for Greenhouse Gas Emission Reduction in Canada: The Kyoto Period and Beyond

<sup>6</sup> United Nations (2007) Intergovernmental Panel on Climate Change, Fourth Assessment Report, Working Group III

<sup>7</sup> UK HM Treasury (2006) The Stern Review on the Economics of Climate Change